

ABSTRACT

To provide a DC-DC converter capable of suppressing switching
loss with a simple structure, and capable of enhancing converting
5 efficiency.

An LC resonant circuit 3 is inserted on a secondary side of
a transformer 1. If switching means 2 is turned ON or OFF by driving
means 4, output can be obtained on the secondary side through the
transformer 1. A resonant current frequency detecting means
10 comprises a current detecting current transformer 5 and a frequency
detecting unit 6. The resonant current frequency detecting means
detects resonant current frequency caused by operation of the LC
resonant circuit 3. This frequency is fed back to the driving means.
As a result, the driving means 4 turns the switching means 2 ON
15 or OFF at a frequency corresponding to the resonant frequency of
the LC resonant circuit 3.